

## **REMARKS**

Claim 1 has been amended. Basis for this amendment may be found, for example, in the specification at paragraphs 0033 and 0034.

Claims 1-16 are pending in the application.

### **The Effective Filing Date**

The Office Action asserted that the claimed inventions are not entitled to the benefit of the provisional filing date under 35 U.S.C. § 119(e). It is respectfully submitted that there is no need to resolve the question at this time. Applicants therefore respectfully defer further discussion.

No currently-pending ground of rejection appears to hinge upon which Claims are entitled to the benefit of the earlier, provisional filing date; and which Claims (if any) might only be entitled to the benefit of the later, nonprovisional filing date.

Even if one assumed hypothetically, for the sake of argument, that all Claims were entitled only to the benefit of the nonprovisional filing date, it is nevertheless respectfully submitted that all grounds of rejection should be withdrawn for the reasons given below. It therefore appears unnecessary to address this question further for the time being.

Applicants reserve the right at a later time to demonstrate that any or all Claims are entitled to the benefit of the provisional filing date.

### **The Prior Art Rejections**

Claim 1 is the sole pending independent Claim. If independent Claim 1 is novel and nonobvious, it then logically follows that each of its dependent Claims must necessarily be novel and nonobvious as well. See M.P.E.P. § 2143.03, first paragraph. The following discussions of the prior art rejections therefore focus on independent Claim 1.

## The § 102(e) Rejection

Claims 1, 2, 4, 5, and 12 were rejected under 35 U.S.C. § 102(e) as being anticipated by a newly-cited reference, Laulicht.

Applicants maintain that no portion of Laulicht is available as a reference under § 102(e). Applicants reserve the right to demonstrate at a later date that Laulicht, in its entirety, is not a proper reference under § 102(e).

For the time being, however, there are at least two alternative reasons why the claimed inventions are novel over Laulicht: **(1)** Laulicht does not teach all limitations of the claimed inventions. **(2)** The portion of Laulicht cited by the Office has an effective filing date after the nonprovisional filing date of the present application. Thus, even if one assumed hypothetically, for the sake of argument, that the present application were only entitled to the benefit of its own nonprovisional filing date, the cited portion of Laulicht would still not be available as a reference under § 102(e).

### ***1. Laulicht does not teach all limitations of the claimed invention.***

Nothing in Laulicht teaches or suggests the following limitations of Claim 1. Nor did the Office Action suggest otherwise:

**(ii)** the light selectively exposes portions of the polymer surface in accordance with a pre-determined pattern, while not exposing the remaining portions of the polymer surface to substantial light;

**(iii)** the fluence of light in the exposed portions of the polymer surface suffices to induce photooxidation of polymer on or near the polymer surface, sufficient to generate substantial quantities of carboxyl groups that remain bound to the polymer surface, but insufficient to cause substantial photoablation of polymer surface in the exposed portions;

**(iv)** the fluence of light in the unexposed portions of the polymer surface is zero, or is insufficient to induce the generation of substantial quantities of carboxyl groups that remain bound to the polymer surface;

In order to anticipate, a reference must teach all limitations of the claimed invention. Laulicht taught none of the quoted limitations. For this reason alone, the claimed invention is novel over Laulicht.

***2. The cited portion of Laulicht has an effective filing date after the nonprovisional filing date of the present application.***

Furthermore, the cited portion of Laulicht is not even potentially available as a reference under § 102(e), because it had a later effective filing date.

The present application has a nonprovisional filing date of December 12, 2003. Even if, hypothetically, for the sake of argument, one were to disregard the Applicants' priority claim under 35 U.S.C. § 119(e), the present application would still be entitled to the benefit of its nonprovisional filing date, December 12, 2003.

Laulicht was not filed until several months later, on October 29, 2004. On its face, therefore, Laulicht does not initially appear to be a reference that could be cited against the present application under 35 U.S.C. § 102(e).

However, Laulicht claimed priority under 35 U.S.C. § 119(e) from provisional application 60/516,224, filed October 31, 2003. Thus the Laulicht provisional filing date was a few weeks before the nonprovisional filing date of the present application. The Laulicht provisional filing date could thus entitle some portions of Laulicht to an October 31, 2003 effective filing date.

However, see M.P.E.P. § 2136.03, part II, first paragraph:

If such an international application properly claims benefit to . . . an earlier-filed U.S. provisional application, apply the reference under 35 U.S.C. 102(e) as of the earlier filing date, assuming all the conditions of 35 U.S.C. 102(e) and 35 U.S.C. 119(e) . . . are met. In addition, the subject matter relied upon in the rejection must be disclosed in the earlier-filed application in compliance with 35 U.S.C. 112, first paragraph, in order to give that subject matter the benefit of the earlier filing date under 35 U.S.C. 102(e).

To similar effect see also M.P.E.P. § 2136.03, part III; and § 706.02(f)(1), Example 4, last paragraph.

The Office has the burden of persuasion to demonstrate where the earlier-filed application supports the cited portions of Laulicht under 35 U.S.C. § 112, first paragraph and 35 U.S.C. § 119(e). However, the Office has made no such showing.

As of the date when the present paper is being filed, the undersigned has not read the entire disclosure of provisional application 60/516,224. However, based on the undersigned's initial review, the portion of the Laulicht published, nonprovisional

application that was cited by the Office appears to have had no counterpart in provisional application 60/516,224.

More specifically, the Office Action cited paragraph 0132 of the published Laulicht application, US 2007/0275080. Following an initial (and admittedly partial) review by the undersigned, paragraphs 0129 through 0136 of published Laulicht application US 2007/0275080 appear to correspond generally to page 36 of provisional application 60/516,224. (The provisional application is available online through PAIR.) However, the provisional application appears to include nothing that corresponds to cited paragraph 0132 of published nonprovisional application 2007/0275080.

If the Office contends otherwise, then the Office has the burden of demonstrating where the Laulicht provisional application provides support for paragraph 0132 of the published Laulicht nonprovisional application under 35 U.S.C. § 112, first paragraph and § 119(e).

Unless the Office affirmatively demonstrates otherwise, the effective filing date of the cited portion of Laulicht is presumptively the later, international filing date, and not the earlier provisional date. The October 2004 PCT filing date was well after the December 2003 nonprovisional filing date of the present application. Thus the cited portion of Laulicht is not available as a reference under 35 U.S.C. § 102(e).

### **§ 102(e) Summary**

For either of these reasons, it is respectfully submitted that the rejection over Laulicht should be withdrawn: (1) Laulicht does not teach all limitations of the claimed invention. (2) The cited portion of Laulicht has an effective filing date after the nonprovisional filing date of the present application. The claimed inventions are novel over Laulicht.

### **The § 103 Rejection**

Claims 1-2, 4-11, 13 and 14 were again rejected under 35 U.S.C. § 103(a) as being obvious over Brandow.

Applicants' earlier, January 12, 2009 and August 10, 2009 Amendments had distinguished Brandow on the ground that the reacting groups in Brandow differed from

the “reactants” specified in Claim 1. See the January 12, 2009 and August 10, 2009 Amendments for details, which will not be repeated in the interest of brevity.

The undersigned interprets the Office’s November 30, 2009 remarks as implying that the Office has no fundamental disagreement with Applicants’ basic rationale for distinguishing Brandow.

However, the Office observed that the language of Claim 1 could be construed more broadly than the Applicants had interpreted it, in a way that arguably might not be completely distinguishable over Brandow.

Brandow described reactions with compounds having a “QZ” structure, in which the Z group was “a functional group which can be attached to the surface,” while the Q group was “a group possessing the appropriate combination of physical and chemical properties required for the application.” See Brandow, col. 6, lines 10-13, and Brandow’s Fig. 2.

Applicants had previously amended Claim 1 so that the “reactants” specified in the Claim did not include any of Brandow’s “Z” groups. Applicants argued that the claimed invention was therefore distinguishable over Brandow; and that the several possibilities for Brandow’s “Q” groups were largely irrelevant, since it was only Brandow’s “Z” group, not the “Q” group, that attached to the surface.

The November 30, 2009 Office Action at page 4 responded that “the claim language does not specify which part of the reactant [is] bound to the carboxyl group.”

If the undersigned correctly understands the Office’s remarks, the Office had interpreted the “reactant” limitation of Claim 1 (August 10, 2009 version) to refer to any compound that contained one of the specified functional groups, anywhere in the molecule – regardless of whether it was the specified functional group or some different part of the compound that reacted with the surface-bound carboxyl groups. Put differently, in the nomenclature of Brandow, if a “QZ” compound contains a “Q” group that otherwise satisfies the “reactant” limitation of Claim 1 – even though the “Z” group does not satisfy that limitation, and even though it is the “Z” group that actually reacts with the bound carboxyl groups – then the Office’s interpretation is that the “QZ” compound as a whole would nevertheless satisfy the “reactant” limitation of Claim 1 (August 10, 2009 version). (If this understanding of the Office’s November 30, 2009 remarks is incorrect, then the Office is respectfully requested to clarify.)

To address the Office's broad interpretation of "reactant," Applicants have now amended Claim 1 to specify that "the one or more reactants comprise a chemical group with which the bound carboxyl groups react; wherein the chemical group is [[are]] selected from the group consisting of amines, imides, azides . . . ."

It should now be unambiguously clear that Brandow's "Q" groups are irrelevant in comparing amended Claim 1 to Brandow, since Brandow taught that only the "Z" group, not the "Q" group, attached to the surface. The Markush listing in amended Claim 1, defining the chemical group with which the bound carboxyl groups react, is clearly distinguishable from Brandow's "Z" groups – for the reasons that were given in detail in the prior Amendments, and that will not be repeated in the interest of brevity. (Please see the January 12, 2009 Amendment at page 3, and the August 10, 2009 Amendment at page 4.)

It is respectfully submitted that the invention of amended Claim 1 is neither taught nor suggested by Brandow, and that the § 103 rejection should be withdrawn.

#### **Request for Telephonic Interview**

It is respectfully submitted that the application is now in condition for allowance.

Strictly in the alternative, should the Examiner note any remaining obstacles to allowance, then the Examiner is respectfully requested to contact the undersigned to schedule a telephonic interview before the next written action is mailed. It is hoped that any remaining issues can be resolved efficiently in a telephonic interview, and that prosecution may be concluded promptly.

Depending on the nature of any remaining issues, it could be helpful for one or more of the inventors to participate in the telephone interview as well.

### **Conclusion**

It is respectfully submitted that all grounds of rejection have been overcome, or should otherwise be withdrawn. Allowance of Claims 1-16 at an early date is respectfully requested.

Respectfully submitted,

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